

24. (New) The construct of claim 23, wherein the tandem repeat comprises five copies of the codon.

25. (New) The construct of claim 23, wherein the tandem repeat comprises six copies of the codon.

26. (New) The construct of claim 23, wherein the tandem repeat comprises seven copies of the codon.

27. (New) The construct of claim 7, wherein the tandem repeat is fused at a location adjacent to, or within, the reporter polynucleotide.

28. (New) The construct of claim 27, wherein the tandem repeat is fused immediately upstream of the reporter polynucleotide.

29. (New) The construct of claim 7, wherein at least one spacer codon is located adjacent to a tandemly repeated codon.

30. (New) The construct of claim 7, wherein at least one spacer codon is interposed between a pair of tandemly repeated codons.

31. (New) The construct of claim 29, wherein the spacer codon is a neutral amino acid.

32. (New) The construct of claim 30, wherein the spacer codon is a neutral amino acid.

33. (New) The construct of claim 29, wherein the spacer codon is selected from alanine and glycine.

34. (New) The construct of claim 30, wherein the spacer codon is selected from alanine and glycine.

35. (New) The construct of claim 7, wherein the reporter protein is selected from the group consisting of β -galactosidase, firefly luciferase, alkaline phosphatase, chloramphenicol acetyl transferase, β -glucuronidase, green fluorescence protein and active portions thereof.

36. (New) The construct of claim 7, wherein the reporter protein is encoded by a bialophos resistance gene that confers resistance to the herbicide BASTA.

37. (New) The construct of claim 7, wherein the reporter protein is green fluorescence protein or an active portion thereof.

38. (New) A synthetic construct system for determining the translational efficiencies of different codons, the system comprising a plurality of synthetic constructs, each comprising a regulatory polynucleotide operably linked to a tandem repeat of a codon fused in frame with a reporter polynucleotide that encodes a reporter protein, wherein the tandemly repeated codon of a first construct is different than the tandemly repeated codon of a second construct.

39. (New) The system of claim 38, wherein the tandemly repeated codons of the first and second constructs encode the same amino acid.

40. (New) The system of claim 38, wherein the tandemly repeated codons of the first and second constructs encode different amino acids.

41. (New) The system of claim 39, comprising a set of synthetic constructs, the number of synthetic constructs of the set being equal to the number of synonymous codons that encode a first amino acid, wherein the tandemly repeated codon of each synthetic construct of the set is a synonymous codon that encodes the first amino acid and wherein different synthetic constructs of the set comprise different tandemly repeated codons.

42. (New) The system of claim 39, comprising a first set of synthetic constructs and a second set of synthetic constructs, the number of synthetic constructs of the first set being equal to the number of synonymous codons that encode a first amino acid, the number of synthetic constructs of the second set being equal to the number of synonymous codons that encode a second amino acid, wherein the tandemly repeated codon of each synthetic construct of the first set is a synonymous codon that encodes the first amino acid, wherein the tandemly repeated codon of each synthetic construct of the second set is a synonymous codon that encodes the second amino acid and wherein different synthetic constructs of the first or second sets comprise different tandemly repeated codons.

43. (New) The system of claim 38, wherein the tandem repeat of each of the synthetic constructs comprises at least three copies of the corresponding codon.

44. (New) The system of claim 43, wherein the tandem repeat of each of the synthetic constructs comprises five copies of the corresponding codon.

45. (New) The system of claim 43, wherein the tandem repeat of each of the synthetic constructs comprises six copies of the corresponding codon.

46. (New) The system of claim 43, wherein the tandem repeat of each of the synthetic constructs comprises seven copies of the corresponding codon.

47. (New) The system of claim 38, wherein the tandem repeat is fused at a location adjacent to, or within, the reporter polynucleotide.

48. (New) The system of claim 47, wherein the tandem repeat is fused immediately upstream of the reporter polynucleotide.

49. (New) The system of claim 38, wherein at least one spacer codon is located adjacent to a tandemly repeated codon.

50. (New) The system of claim 38, wherein at least one spacer codon is interposed between a pair of tandemly repeated codons.

51. (New) The system of claim 49, wherein the spacer codon is a neutral amino acid.

52. (New) The system of claim 50, wherein the spacer codon is a neutral amino acid.

53. (New) The system of claim 49, wherein the spacer codon is selected from alanine and glycine.

54. (New) The system of claim 50, wherein the spacer codon is selected from alanine and glycine.